grinding. An average 2.7 dBA reduction in OBSI levels was observed for all test sites. Among the six routes, the highest average reduction of 4.4 dBA was observed on I-5 near Richards Boulevard in Sacramento County, and the lowest reduction of 1.2 dBA was observed on State Route 60 (on a single test section) in San Bernardino County. The highest reductions in sound intensity levels on a 1/3-octave band basis occurred in the 1600 Hz band, while the lowest reductions occurred in the 1000 Hz bandwidth.

Reiter, D., Bowlby, W., Herman, L. and Boyer, J. (2004): "Traffic Noise in Montana: Community Awareness and Recommendations for a Rural State", National Technical Information Service, Springfield, Virginia

This research focuses on current policies, practices and procedures for non-traditional noise abatement solutions, solutions that are alternative to noise barrier walls or berms built by a state department of transportation (DOT). Reviews of the literature and the practice have been conducted on pavement related noise, noise-compatible land use planning, sound insulation, and traffic management techniques. Type II (retrofit) noise barrier programs have also been examined. Also, a detailed examination of land use planning and development processes and procedures within the State of Montana has been completed, including discussions with a number of local agency planners. This work reveals that because of concerns over growth, many mechanisms are in places that are conducive to the implementation of a noise-compatible planning and development program. Additionally, two surveys were developed and administered: one for citizens living near busy roads in four Montana urban areas and one for local Montana planners. The surveys deal with people's perceptions of noise and noise mitigation, and interest in noise-compatible planning and development. The analyses of the survey data, the literature and the practice have resulted in a number of recommendations to the MDT regarding implementation of noise-compatible planning and development in Montana.

Rymer, B., Donavan, P., and Kohler, E. (2010): "Tire-Pavement Noise Levels Related to Roadway Friction Improvement", TRB 2010 Annual Meeting

In the United States, much has been learned about pavement acoustics in the past eight years with the development of the new On-Board-Sound-Intensity (OBSI) measurement method. OBSI allows researchers to quickly measure and compare pavement acoustics in great detail. A field demonstration provided a unique and controlled opportunity to examine how tire-pavement noise levels could be influenced with increases in friction on flexible and rigid pavements. The OBSI spectral measurements provided additional insight on how a shot peening process altered the noise generating mechanisms of the pavement surfaces. Spectral shifts in low and high frequencies were observed and the magnitude of the shifts varied between the two flexible and two rigid pavements. Generally, at frequencies below 1000 Hz, the texturing tended to increase the one third octave band levels. The process removed fine